

choke cherry brush where my wife had followed it with a camera giving exposures up to twenty seconds. As soon as she desisted the owl immediately closed its eyes, although its short flights were made with swiftness and vigor.

It appeared to prefer perching at heights of three or four feet from the ground, and refused to stay in the tall box-elders of which there were several in the grove. A shrew-mouse on a branch near the owl had obviously been killed by it. As seen at a distance of eight feet this bird's appearance was as follows.

Upper parts uniform chocolate brown, wings and tail darker; facial disc black, in strong contrast to broad white circles above the eyes, the white including the forehead. Upper breast the color of back, becoming abruptly fulvous on the underparts and giving the impression that beneath the bird is half brown and half buff. Primaries spotted with white. Feet and legs pale buff, bill black, irides orange. Length about seven inches.

77. *Asio wilsonianus*. On May 7, 1907, when walking with Mr. Dan Bowman at his ranch near Knowlton, we saw a Long-eared Owl lying dead upon her six eggs in a deserted crow's nest. We concluded that she died from eating a poisoned bait.

79. *Megascops asio maxwelliæ*. Four, two old, and two young which could scarcely fly, were seen by Bert Bowman at his father's saw-mill on Horse Creek, Custer County, in July, 1897. He again noticed four on the south fork of Sheep Creek, Custer County, in July, 1905.

SUMMER BIRDS OF THE GREEN MOUNTAIN REGION OF SOUTHERN VERMONT.¹

BY FRANCIS H. ALLEN.

So little has been published concerning the distribution of birds in Vermont that I have thought my observations conducted in the breeding-season in the years 1886, 1895, and 1907 in the southern part of the State might be of some interest. These observations were confined to periods of about a fortnight each at a time when practically all birds were settled for the season, and they thus show, so far as they go, the breeding population. In 1886 I spent the time from July 5 to July 19 at Londonderry, in Windham County,

¹ Read before the Nuttall Ornithological Club, Oct. 21, 1907.

and again in 1895 I visited the same place from June 17 to July 1. In 1907 I conducted my observations in the neighborhood of West Bridgewater, in Windsor County, from June 18 to June 29.

Londonderry is in Lat. $43^{\circ} 13'$, in the valley of the West River, about midway between the New Hampshire and New York lines. The altitude of the principal village, South Londonderry, is 1020 feet; that of the North Village, three miles farther up the river, is 1100 feet. The house where I spent my nights is on the brow of a hill on the east side of the town and is about 1450 feet above the sea. The country is smooth and comparatively fertile. The main Green Mountain range, on the west side of the valley, reaches its culmination for this region in Stratton Mountain (3859 feet), said to be the highest mountain in Vermont south of Killington Peak. On the east side, Glebe Mountain, or the Glebe, is the highest, with an altitude of 2944 feet. These mountains were in 1886 and 1895 — I am uninformed as to present conditions — almost entirely covered with forest, mostly well advanced second growth but with more or less of the original. They are graceful in shape, with flowing outlines, and present little of the rugged in appearance. The West River is a swift, shallow stream, of only moderate width, except above the milldams. There are considerable stretches of intervale in places along its banks.

The woods of this region were mostly yellow birch, hemlock, red spruce, balsam fir, and sugar maple. White pines were only fairly common. The deciduous trees and mixed growth extended well up the mountainsides, even to the summit of the Glebe. The character of the country was sufficiently diversified to attract a respectable variety of birds.

West Bridgewater, the centre of my operations in 1907 (June 18–29), is a little hamlet situated in the narrow valley of the Ottaquechee River in the heart of the Green Mountains, in Lat. $43^{\circ} 36'$ and nearly due north of Londonderry. It is at the extreme west of the township of Bridgewater and also of Windsor County, a considerable part of the village being in Sherburne, Rutland County, in fact. Three other towns corner near by,—Mendon, Shrewsbury, and Plymouth. The altitude of the river-bottom at this point is about 1100 feet, and the mountains rise steeply above it, covered entirely with forest except for a few hill farms on some of

their lower ridges. The brook from the reservoir pond in Plymouth enters the river near the post-office, and its valley forms with the river-valley a kind of Y. The intervalles are too restricted to admit of extensive grass-fields, so that the birds of the open are not very numerous and of so common a bird as the Vesper Sparrow I found but a single individual. Woods birds, on the other hand, are abundant enough.

The western wall of the valley is formed by the main range of the Green Mountains. Killington Peak (4241 feet), the highest mountain in southern Vermont, is due west of the village, the summit at a distance of about three miles in an air line and about five miles by trail. Pico Peak (3967 feet) is a little farther north. Several other peaks in the neighborhood ascend beyond 3500 feet. On the other side of the Ottaquechee River is the long ridge of East Mountain, which rises to the height of 2812 feet.

In the valley and well up the mountainsides hardwood trees and mixed growth predominate, except in overgrown pastures, where young spruces and firs are the principal trees. On the upper slopes red spruce forms the bulk of the forest, and the summits of Killington and Pico Peaks are covered with a scrub growth of balsam fir, except that the very top of Killington is bare ledge. The deciduous woods are composed chiefly of sugar maple, yellow birch, beech, and paper birch. Scattered trees of red oak are not uncommon on the lower levels. Hemlock is common, but I saw no pine of any kind in the immediate neighborhood.

The Ottaquechee River is swift and shallow here for the most part, though there are several natural deadwaters in the town of Sherburne, one of which, at least, has marshy banks which harbor a few Swamp Sparrows as well as Red-winged Blackbirds and Savanna Sparrows.

The faunal relations of New England birds are so well understood that no general remarks as to the local distribution of the species are necessary here, and I proceed at once to the list. (It should be noted that this list cannot pretend to completeness even within its narrow limits. There are certainly omissions among the larger and more seclusive birds such as hawks and owls, but it probably gives a sufficient indication of the general character of the summer ornithology of this region.)

LIST OF SUMMER BIRDS OBSERVED IN THE GREEN MOUNTAIN
REGION OF SOUTHERN VERMONT.

Note.—L. is used for Londonderry, W. B. for West Bridgewater.

1. *Butorides virescens*. GREEN HERON.— Not uncommon in L. in 1886. Not seen there in 1895 nor at W. B.
 2. *Philohela minor*. AMERICAN WOODCOCK.— One observed in Sherburne, June 21, 1907, at an altitude of 1800 or 1900 feet.
 3. *Bartramia longicauda*. BARTRAMIAN SANDPIPER.— A pair observed in L., 1895. They evidently had a nest or young near by, to judge by their actions.
 4. *Actitis macularia*. SPOTTED SANDPIPER.— One or two observed at L., 1895; none seen there, 1886. Quite common at W. B.
 5. *Colinus virginianus*. BOB-WHITE.— One heard at L., June 30, 1895, all through the day, in fields and bushy pastures near the house where I stayed. This is probably about the northern limit of the natural distribution of this species in Vermont. I cannot, however, be positive that this was not an introduced bird, though I think it doubtful if any Quail have, or had at that time, been introduced in that neighborhood.
 6. *Bonasa umbellus subsp.* RUFFED GROUSE.— Not uncommon. One old bird with young at W. B. was seen to be very gray and was doubtless of the subspecies *togata*, as are probably most or all of the birds in this region.
 7. *Buteo borealis*. RED-TAILED HAWK.— Two observed at L., 1895; no hawks identified there in 1886. Three at W. B.
 8. *Buteo platypterus*. BROAD-WINGED HAWK.— One observed several times at L., 1895.
 9. *Falco peregrinus anatum*. DUCK HAWK.— One seen at W. B. flying up the brook-valley one afternoon. Mr. G. H. Ross in his 'List of Birds observed in Rutland County' (Vermont Bird Club, Bulletin No. 1, 1906, p. 9) says this species has bred at Wallingford, which is about fifteen miles southwest of W. B.
 10. *Syrnium varium*. BARRED OWL.— One heard at L., 1895. I heard no owls at W. B., though I took a number of evening walks for the express purpose of listening for them. From what the inhabitants told me I concluded that the Barred, Great Horned, and Screech Owls were all found there.
 11. *Coccyzus erythrophthalmus*. BLACK-BILLED CUCKOO.— Rather common.
 12. *Ceryle alcyon*. BELTED KINGFISHER.— Rather common.
 13. *Dryobates villosus*. HAIRY WOODPECKER.— Not uncommon.
 14. *Dryobates pubescens medianus*. DOWNY WOODPECKER.— Rather common.
- [*Picoides arcticus*. ARCTIC THREE-TOED WOODPECKER.— Prof. G. H. Perkins in his 'Preliminary List of the Birds found in Vermont' (New York

and Albany, 1901) says that Mr. G. H. Ross of Rutland has found this species nesting in Sherburne; and Mr. Ross, in his 'List of Birds observed in Rutland County,' says, "One nesting record, Pico Peak, Sherburne."]

[*Picoides americanus*. AMERICAN THREE-TOED WOODPECKER.— Mr. R. H. Howe, Jr.'s, Review of Perkins's List (Contributions to N. A. Ornithology, II, 5-23, 1902) gives this bird as a summer resident on Pico Peak above 2500 feet on the authority of Mr. Ross. Mr. Ross, in his own List (*op. cit.*), merely says, "Have seen it in summer on Pico Peak." Probably neither of the Three-toed Woodpeckers is at all common in this region. In two ascents of Killington Peak and one of Pico I saw none.]

15. *Sphyrapicus varius*. YELLOW-BELLIED SAPSUCKER.— Pretty common; probably the commonest woodpecker of the region.

[*Ceophlœus pileatus abieticola*. NORTHERN PILEATED WOODPECKER.— I think I saw one of these birds at L. in 1895, and I found peck-holes of the species at W. B., though none that were very fresh. It should probably be classed as a rare resident in this region.]

16. *Colaptes auratus luteus*. NORTHERN FLICKER.— Rather common at L. Only two observed at W. B.

17. *Chordeiles virginianus*. NIGHTHAWK.— Rather common at L. None observed at W. B., though I found them common at Woodstock, a dozen miles to the east.

18. *Chætura pelagica*. CHIMNEY SWIFT.— Abundant.

19. *Trochilus colubris*. RUBY-THROATED HUMMINGBIRD.— Two at L., 1886; none there in 1895. Five at W. B.

20. *Tyrannus tyrannus*. KINGBIRD.— Rather common at L. Not very common at W. B.

21. *Myiarchus crinitus*. CRESTED FLYCATCHER.— Not very common at either locality. I found a pair at an altitude of about 2000 feet in the town of Sherburne, in a lumberman's clearing in the woods. I also observed two other individuals in different localities in the neighborhood of W. B.

22. *Sayornis phœbe*. PHŒBE.— Common.

23. *Nuttallornis borealis*. OLIVE-SIDED FLYCATCHER.— Rather common.

24. *Contopus virens*. WOOD PEWEE.— Common.

25. *Empidonax flaviventris*. YELLOW-BELLIED FLYCATCHER.— Not common. A few observed at L., 1895; none identified at W. B.

26. *Empidonax traillii alorum*. ALDER FLYCATCHER.— Uncommon at L. Rather common at W. B.

27. *Empidonax minimus*. LEAST FLYCATCHER.— Rather common at L. Common at W. B.

28. *Cyanocitta cristata*. BLUE JAY.— Rather common.

29. *Corvus brachyrhynchos*. AMERICAN CROW.— Common at L.; less so at W. B.

30. *Dolichonyx oryzivorus*. BOBOLINK.— Common at L.; less so at W. B. on account of scarcity of good breeding-places.

31. *Agelaius phœniceus*. RED-WINGED BLACKBIRD.— Rather common.

32. *Icterus galbula*. BALTIMORE ORIOLE.—Two observed in South Londonderry village, 1895. None found at W. B., though a few were noted at Woodstock on my way there.

33. *Carpodacus purpureus*. PURPLE FINCH.—Common.

34. *Loxia curvirostra minor*. AMERICAN CROSSBILL.—A flock of fifteen or twenty seen twice, and small detachments or individuals several times, at L., 1895.

35. *Astragalinus tristis*. AMERICAN GOLDFINCH.—Pretty common at L. Abundant at W. B.

36. *Spinus pinus*. PINE SISKIN.—Three seen at W. B.

37. *Poecetes gramineus*. VESPER SPARROW.—Common at L. Only one observed at W. B., where extensive upland grass-fields were few.

38. *Passerculus sandwichensis savanna*. SAVANNA SPARROW.—Common in both localities.

39. *Zonotrichia albicollis*. WHITE-THROATED SPARROW.—Common at higher levels. Found as low as 1800 feet at W. B. It came still lower at L., but I have no record of the precise altitude.

40. *Spizella socialis*. CHIPPING SPARROW.—Common.

41. *Spizella pusilla*. FIELD SPARROW.—Rather common at L. Only two observed at W. B.

42. *Junco hyemalis*. SLATE-COLORED JUNCO.—Common at higher levels. Found among spruces as low as 1200 feet at W. B. A few were also seen in the valley at L.

43. *Melospiza cinerea melodia*. SONG SPARROW.—Common.

44. *Melospiza georgiana*. SWAMP SPARROW.—Not very common, doubtless because suitable breeding-places are not numerous or extensive. One observed at L., 1886; three or four there, 1895; three males singing in Sherburne.

45. *Zamelodia ludoviciana*. ROSE-BREADED GROSBK.—Not uncommon at L., 1886; none observed there in 1895. Rather common at W. B.

46. *Cyanospiza cyanea*. INDIGO BUNTING.—Common at L. Rather common at W. B.

47. *Piranga erythromelas*. SCARLET TANAGER.—I found none at L. in 1886, but they were rather common there in 1895. At W. B. I found them not uncommon.

48. *Petrochelidon lunifrons*. CLIFF SWALLOW.—Common.

49. *Hirundo erythrogaster*. BARN SWALLOW.—Abundant.

50. *Riparia riparia*. BANK SWALLOW.—Not uncommon at L., 1886, but not identified there in 1895. Abundant at W. B.

51. *Ampelis cedrorum*. CEDAR WAXWING.—Common.

52. *Vireo olivaceus*. RED-EYED VIREO.—Abundant.

53. *Vireo gilvus*. WARBLING VIREO. Four heard in the village streets in L. in 1895.

54. *Vireo solitarius*. BLUE-HEADED VIREO.—Not very common.

55. *Mniotilta varia*. BLACK AND WHITE WARBLER.—Rather common at W. B. and in 1895 at L., but not observed at L. in 1886.

56. *Helminthophila rubricapilla*. NASHVILLE WARBLER.— I noted but a single individual at L. in 1886, but found the bird abundant there in 1895. Common at W. B. Perhaps this and the preceding species were commoner at L. in 1886 than indicated, and had merely suspended singing.

57. *Compothlypis americana usneæ*. NORTHERN PARULA WARBLER.— Rather common.

58. *Dendroica cærulescens*. BLACK-THROATED BLUE WARBLER.— Rather common at L. Common at W. B.

59. *Dendroica coronata*. MYRTLE WARBLER.— A few observed on the higher levels at L. Pretty common at W. B. A bird of the spruce growth.

60. *Dendroica maculosa*. MAGNOLIA WARBLER.— Abundant at L. and the commonest warbler there. Common at W. B. Haunts the sparse spruces and firs of overgrown pastures.

61. *Dendroica pensylvanica*. CHESTNUT-SIDED WARBLER.— Common at L. Abundant at W. B.

62. *Dendroica striata*. BLACK-POLL WARBLER.— One heard singing on summit of Stratton Mountain, June 29, 1895, at an altitude of about 3800 feet (Auk, XIII, 1896, 345). Abundant on and near summits of Killington and Pico Peaks and found down to about 3200 feet.

63. *Dendroica blackburniæ*. BLACKBURNIAN WARBLER.— Common.

64. *Dendroica virens*. BLACK-THROATED GREEN WARBLER.— Rather common.

65. *Seiurus aurocapillus*. OVEN-BIRD.— Common at L. Rather common at W. B.

66. *Geothlypis philadelphia*. MOURNING WARBLER.— One heard singing June 28 and 30, 1895, at L. Four singing males found at W. B. One of the latter uttered a number of times in my hearing a call or alarm note which may be worth recording here as it is not described in Mr. Chapman's 'Warblers of North America.' It was a sharp, rough *chip*, difficult of description but quite distinct from any other bird-note with which I am familiar.

67. *Geothlypis trichas brachidactyla*. NORTHERN YELLOW-THROAT.— Common.

68. *Wilsonia canadensis*. CANADIAN WARBLER.— Not common at L.; two observed there in 1895. Abundant at W. B. I think I have never elsewhere found this species so abundant as in the neighborhood of West Bridgewater.

69. *Setophaga ruticilla*. AMERICAN REDSTART. Rather common at L. Common at W. B.

70. *Galeoscoptes carolinensis*. CATBIRD.— Not common at L. Rather common at W. B.

71. *Toxostoma rufum*. BROWN THRASHER.— Three or four observed at L. in 1895. None at W. B.

72. *Troglodytes ædon*. HOUSE WREN.— Not common. I found none at L. in 1895 and none at W. B.

73. *Olbiorchilus hiemalis*. WINTER WREN.— Rather common at L. At W. B. I found it positively abundant on the higher levels and occasional as low as 1200 or 1300 feet.

74. *Certhia familiaris americana*. BROWN CREEPER.— Rather common on the higher levels.

75. *Sitta carolinensis*. WHITE-BREASTED NUTHATCH.— Not very common.

76. *Sitta canadensis*. RED-BREASTED NUTHATCH.— Rather common at L. Unexpectedly uncommon at W. B.; only three observed there.

77. *Parus atricapillus*. CHICKADEE.— Common.

78. *Parus hudsonicus*. HUDSONIAN CHICKADEE.— Two observed June 29, 1895, on summit of Stratton Mountain at an altitude of about 3800 feet (Auk, XIII, 1896, 345). I fully expected to find the bird on Killington Peak but on my two ascents of the mountain I was disappointed.

79. *Regulus satrapa*. GOLDEN-CROWNED KINGLET.— Rather common on the higher levels at L. Commoner at W. B.

80. *Hylocichla mustelina*. WOOD THRUSH.— I was surprised to find the Wood Thrush a fairly common bird in the neighborhood of West Bridgewater. I heard nine individuals, eight of which were singing. The ninth was heard calling near the top of the mountain on the eastern side of the Plymouth Pond brook, at an elevation of probably 2000 or 2500 feet. The others were at lower altitudes and chiefly at the foot of the mountains. Their songs could be heard from the road together with the songs of Wilson's, Olive-backed, and Hermit Thrushes. The first one I heard was on my way back from Killington Peak, where I had found the Bicknell's Thrushes in full song, so that I heard that day all five of our New England thrushes singing on their breeding-grounds,— an experience which I had enjoyed only once before, at Chocorua, N. H. I believe that the Wood Thrush is extending its range in northern New England, and it is not unlikely that it may now be found at Londonderry, but I am certain that as recently as 1895 it was absent or at any rate rare in that locality. It also breeds farther north in Vermont. Mr. A. H. Howell found it at the base of Mt. Mansfield in 1899 (Auk, XVIII, 1901, 345), and I found four or five individuals singing at Willoughby Lake in June, 1896. Mr. Bradford Torrey has also reported the bird from Lake Memphremagog, though from the Canadian side of the border ('Birds in the Bush,' Boston, 1885). The occurrence of the bird in the Province of Quebec, by the way, is not noted by Mr. Ridgway in 'The Birds of North and Middle America, Part IV.'

81. *Hylocichla fuscescens*. WILSON'S THRUSH.— Pretty common at L. Abundant at W. B. Confined to the lower levels.

82. *Hylocichla aliciae bicknelli*. Common on and near the summit of Killington Peak and descending to 3200 feet. Mr. R. H. Howe, Jr.,— on the authority of Mr. G. H. Ross, as he writes me,— gives it to Pico Peak as well as Killington. My failure to find it there on June 25 was very likely due to the fact that the birds were not active at the time, the day being a

very warm one and my stay on the summit of short duration. On my second ascent of Killington Peak on June 28 I heard only one or two singing, though a week earlier I had heard as many as eight. Mr. Howe says it "undoubtedly breeds on Mt. Annanance and other peaks over 3,000 feet." I am confident that it breeds on Annanance, for I saw there on June 30, 1896, a thrush with a loud squealing note which was unknown to me at the time but which I have since learned to be one of the Bicknell's notes. I think it very doubtful, however, if it is to be found on *all* peaks over 3000 feet, at least in the southern part of the State, though it may *descend* to that level on mountains of a greater altitude, spreading down from the scrub firs and spruces which are its normal habitat into the larger growth of the mountainsides.

83. *Hylocichla ustulata swainsoni*. OLIVE-BACKED THRUSH.— Rather common at L. Abundant at W. B. Commonest on the higher levels but descending well down the mountainsides.

84. *Hylocichla guttata pallasii*. HERMIT THRUSH.— Abundant in both localities, except that in 1895 this species had suffered decimation from the severe frosts of the preceding winter in the South, so that I found at L. that year but seven individuals singing (probably representing as many pairs).

85. *Merula migratoria*. AMERICAN ROBIN.— Abundant.

86. *Sialia sialis*. BLUEBIRD.— Common at L., 1886; absent in 1895, owing to the disastrous frosts of the preceding winter. Rather common at W. B.

The absence of the Bay-breasted Warbler (*Dendroica costanea*) from the foregoing list will perhaps be a matter of surprise to ornithologists who have found it comparatively common in the White Mountains of New Hampshire. I was constantly on the lookout for the bird at West Bridgewater, especially among the spruce growth of the higher altitudes, just below the Black-poll's haunts, where I confidently expected to find it, but though I am very familiar with its song and should certainly have noted it had the bird been present and singing, I was unsuccessful. Neither did I find the species at Willoughby Lake, Vt., where I spent the fortnight from June 17 to July 1, 1896. It is also absent from Mr. A. H. Howell's admirable list of the 'Summer Birds of Mount Mansfield, Vermont' (Auk, XVIII, 1901, 337-347). Professor Perkins calls it simply a migrant, and Mr. Howe (*op. cit.*) says, "Reported at Townshend summer, 1901, though not actually found breeding, Evans." It seems improbable therefore that the Bay-breasted Warbler can be anything like as common a breeder in the Green Mountains as it is in the White Mountains.